

10/6/6981

7/11/03

## Semiconductor Chip, Wiring Board and Manufacturing

Process thereof as well as Semiconductor Device

Ins. 7  
A17

A17

### Background of the Invention

### Field of the Invention

The present invention relates to a semiconductor chip and a wiring board wherein external electrodes on both sides of a semiconductor substrate are electrically connected by means of conductive patterns formed so as to follow the sides of the semiconductor substrate and the manufacturing process thereof as well as a semiconductor device that uses the semiconductor chip thereof.

### Description of Prior Art

In recent years together with the miniaturization and the increased performance of electronics, as represented by computers and communication apparatuses, miniaturization, increased density and increased speed have become required for semiconductor devices. Therefore, a multi-chip type semiconductor device has been proposed wherein a plurality of semiconductor chips are mounted on a wiring board so as to form a module and miniaturization and higher density have been achieved.

In the following, several different modes of conventional semiconductor devices are described.